

## **DETAILED ACTION**

### ***Amendments***

[1] This office action is responsive to Amendment received on September 5, 2008. Claims 1-22 remain pending.

### ***Response to Arguments***

[2] Remarks filed September 5, 2008 with respect to claims 11-17 and 19-36 have been respectfully and fully considered, but not found persuasive.

### ***Summary of Remarks regarding 35 U.S.C. § 102(b) Anticipation Rejections***

The Examiner specifically cites Col. 4, lines 18-39 as disclosing "known document templates" ("different respective formats"). Applicants respectfully submit that the cited portion does not disclose the full text, "a series of document templates from the account". Col. 4, lines 18~39 is silent regarding the source of the "respective other transaction documents having different respective formats". The balance of the citation provides a description of the apparatus used for scanning and analyzing the "reference recognition characteristics."

(Applicant's Remarks at 10, September 5, 2008.)

### ***Examiner's Response***

However, the "source" of the "respective other transaction documents having different respective formats is irrelevant when (i) for the respective formats to exist they must have come from a source; and (ii) the claim is not limiting what kind of source is required (other than use of the source from an account). The Examiner has interpreted "account" to be the account holding scanned check 110, the account holding all scanned checks and their respective formats.

### ***Summary of Remarks***

In similar fashion, Col. 2, line 63 - Col. 3, line 25 is cited as disclosing "the account." However, the cited portion provides a general discussion of the various types of account and accounts payable documents that may be utilized with Krouse's disclosure, but is silent regarding any linkage between the account and "a series of document templates from the account."

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The Examiner further cites Col. 14, lines 64-67 as disclosing "...to allow that particular document to be identified and read;" specifically, "processor 220 compares the recognition characteristics of the particular document 400 being processing[sic] with the sets of reference recognition characteristics stored in the archive." The cited portion is silent regarding the source of the "reference recognition characteristics" stored in the archive.

Krouse also does not disclose the limitation, "using the appropriate template from the account to identify a location on the document to look for information that is desired during document processing," found in amended claim 1. As noted above, Krouse is silent regarding the source of the document templates stored in the archive, and appears to use standardized, general financial documents. (Col. 7, lines 32-53; Col. 16, lines 43-59)

(Remarks at 11.)

### ***Examiner's Response***

However, interpreting "account" to be the account holding all scanned checks and their respective formats (including item 110) anticipates the claims. The previous interpretation of "account" incorporated the sense of an outside banking account. The current interpretation is separate from the previous, in that the account now as anticipated is all the stored scanned checks (separate from all the actual various banking accounts from the bank itself). "[P]resenting a document image from an account" occurs when a scanned check in the account of all stored scanned checks (separate from all the actual various banking accounts from the bank itself) is used to proceed with the other method steps. The scanned check is taken from such an account to be matched, given confidence scores, searched, and identified – and is thus first "presented" from such an account in order to do so.

The Examiner suggests further limiting the method-step of "presenting a document image from an account" and/or what an account is to remove the ambiguity of Applicant's and Examiner's interpretations.

### ***Summary of Remarks regarding 35 U.S.C. § 103(a) Obviousness Rejections***

Applicants submit that the combination of Krouse and Stolfo does not teach the claim limitation "matching the document image against *a series of document templates from the account*, each

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document template including information about a unique layout of a particular document to allow that particular document to be identified and information in that particular document to be identified and read" as found in independent claims 1 and 10.

Claim 10 is allowable for the reasons given above with respect to claim 1. Adding Stolfo does not cure the Krauses deficiencies. The Examiner cites Stolfo as disclosing "matching the confidence scores with a predetermined high similarity threshold..." and cites fig. 6 as disclosing, teaching or suggesting the limitation. However, Stolfo is silent regarding the limitation "matching the document image against *a series of document templates from the account*, each document template including information about a unique layout of a particular document to allow that particular document to be identified and information in that particular document to be identified and read".

Stolfo discloses a method for processing an image, consisting of a foreground and a background, to produce a highly compressed and accurate representation of the image. (Abstract) The image is compared with a codebook of stored digital images. (Col. 11, lines 18-20) Stolfo is silent regarding the source of the images used to build the codebook. Therefore, Applicant submits that Stolfo does not teach, disclose, or suggest the limitation "matching the document image against *a series of document templates from the account*, each document template including information about a unique layout of a particular document to allow that particular document to be identified and information in that particular document to be identified and read," and requests that the rejection of claim 10 be withdrawn.

(Remarks at 13-14.)

### ***Examiner's Response***

However, Examiner's interpretation of account to include all scanned checks and their respective formats in the system of *Krouse et al.* anticipates the claims in question. The "account" under Examiner's interpretation is separate from the banking accounts outside the system of *Krouse et al.* where the checks came from, and are now the collection of such checks that have been scanned into the account of *Krouse et al.* now used to compare such scanned images. Those scanned checks from such an account (the collection of all digital checks and their respective formats) are then matched against a series of known document templates, and in order to do so are thus "presented" from the account. The matching of the scanned check against a series of known document templates ("different respective formats" at 4:18-39 in "archive" item 228) is again done from the same account.

The Examiner suggests further limiting the method-step of “presenting a document image from an account” and/or what an account is to remove the ambiguity of Applicant’s and Examiner’s interpretations.

***Claim Rejections - 35 USC § 101***

[3] 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

[4] **Claims 1-15** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

A judicial exception claim is non-statutory for solely embodying an abstract idea, natural phenomenon, or law of nature. *See* M.P.E.P. § 2106(IV)(C)(2). However, a practical application of a judicial exception claim is a § 101 statutory claim “when it:

- (A) ‘transforms’ an article or physical object to a different state or thing [(i.e., a physical transformation, see below)]; or
- (B) otherwise produces a useful, concrete and tangible result, based on the factors discussed below. . . .” *Id.*

§ 101 statutory transformations of intangible articles or physical objects must be physical transformations (i.e., a physical component to the transformation must be involved). *See* M.P.E.P. § 2106(IV)(C)(2) (requiring the element “provides a transformation or reduction of an article to a different state of thing”, a “practical application by physical transformation”) and Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Official Gazette notice, 22 November 2005, Annex (II)(B)(iii); (III).

Image data (*e.g.*, a pixel) is a block of existing information as there is nothing tangible or physical about a image data itself (*i.e.*, a pixel could be equivalent to the value “101”, or signal representation of an image). A pixel is more representative of an information value or signal (an image block more representative of an information matrix) than something tangible or physical.

Furthermore, a claim including a method-step for inputting or outputting a pixel or image, but not indicating physically where the pixel or image is sent does not indicate a physical transformation, nor a useful, concrete and tangible result. The claim would require further information as to indicate physical location (*e.g.*, memory, display) for a complete physical transformation of an image signal (*e.g.*, pixel, image block) article. Claims 1-16 are non-statutory for being a judicial exception, an abstract idea.

[5] In addition, while the claims recite a series of steps or acts to be performed, a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. *See Clarification of “Processes” under 35 U.S.C. 101*, Deputy Commissioner for Patent Examining Policy, John J. Love, May 15, 2008; *available at* [http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/section\\_101\\_05\\_15\\_2008.pdf](http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/section_101_05_15_2008.pdf).

The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

[6] The USPTO “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility” (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

**Claims 16-22** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. **Claims 16-22** define a "computer program having computer readable instruction" embodying functional descriptive material. However, the claim does not positively define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "[w]hen functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed "computer program" can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory.

A computer program having computer readable instructions is still a program. Any amendment to the claim should be commensurate with its corresponding disclosure.

***Claim Rejections - 35 USC § 102***

[7] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

[8] **Claims 1 and 9** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,097,834 (issued Aug. 1, 2000, hereinafter “*Krouse*”).

Regarding **claim 1**, *Krouse* discloses a method (fig. 1) of automatically selecting document templates (“different respective formats” at 4:18-39), comprising the steps of:

presenting (the scanned check 110 is presented to the other method-steps for matching, producing confidence scores, and matching to an appropriate template) a document image (fig. 6, item 110; “document 400” at 14:64-16:2) from an account (scanned check 110 is from an account, the account holding all scanned checks and their respective formats);

matching (“match” at 14:64-16:2) the document image (fig. 6, item 110; “document 400” at 14:64-16:2) against a series of known document templates (“different respective formats” at 4:18-39 in “archive” item 228) from the account (scanned check 110 is from an account, the

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account holding all scanned checks to be searched and their respective formats), each document template including information about a unique layout of a particular document image (“the particular document format utilized is unique to the party generating the document” (*emphasis added*) at 2:63-3:25; “Abscissa and Ordinate Displacements”, “Length Difference”, and “Width Difference” in “TABLE” at 16:5-29; “reference billing documents having their own respective formats” at 14:24-26) to allow that particular document to be identified (“[p]rocessor 220 compares the recognition characteristics of the particular document 400 being processing with the sets of reference recognition characteristics stored in the archive 228. . .” at 14:64-67) and information in that particular document to be identified and read (the information in document 400 is “identified and read” at 14:64-16:2);

producing confidence scores (“processor 220 ‘scores’ the degree of best fit match condition. . .this scoring is made according to the scheme described in the following Table [at 16:5-29]” at 15:59-16:2) corresponding to the degree of similarity of the document image compared to each document template (“different respective formats” at 4:18-39); and

searching a document ( “check” at 7:32-53; “bill document” at 16:43-59) for distinctive features (“recognition characteristics from the scanned image” at 4:18-39; “standardized portion” at 7:32-53) and matching the document to an appropriate template (“based upon the one respective format when the particular format is determined to match the one respective format” at 4:18-39 wherein the template is the “one respective format”); and

using the appropriate template from the account (scanned check 110 is from an account, the account holding all scanned checks to be searched and their respective formats) to identify a location on the document to look for information that is desired during document processing

(16:43-59 wherein item 218 takes the information from the reference billing document matched and “[g]enerator 218 then uses this information to determine the location and parsing of the fields in the OCR line of the scanned image. . .to apply to the particular OCR field location of the scanned image. . .”; “determining, based upon the one respective format. . .location of a field in the scanned image to which optical character recognition (OCR) may be applied to generate the transaction-related information” at 4:18-39).

Regarding **Claim 9**, Claim 9 recites identical features as in Claim 1. Thus, arguments equivalent to that presented above for Claim 1 are equally applicable to Claim 9.

### ***Claim Rejections - 35 USC § 103***

[1] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[2] **Claims 2-8, 10-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Krouse* in view of U.S. Patent No. 5,668,897 (issued Sep. 16, 1997, *hereinafter* “*Stolfo*”).

Regarding **Claims 2** and **3**, while *Krouse* discloses the method of Claim 1, *Krouse* does not further comprise (i) the step of matching the confidence scores with a predetermined high similarity threshold, and (ii) the step of positively identifying the document image if a confidence score is above the predetermined high similarity threshold.

*Stolfo* teaches comprising a step of matching the confidence scores with a predetermined high similarity threshold (referring to fig. 6, the check image undergoes the step of searching a database (106) in search for either a complete match (108), a match within tolerance (112), or a

match of any combination of patterns (118). “The input image is deemed to be a match whenever the distance is less than a preestablished threshold ( $\lambda$ ).”, 3:28. It can be inferred that a high similarity threshold is when the calculated distance is less than (considered “above” when negating) a pre-established  $\lambda$  (step 108 or 112).).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the method of *Krouse* to include further comprising (i) the step of matching the confidence scores with a predetermined high similarity threshold, and (ii) the step of positively identifying the document image if a confidence score is above the predetermined high similarity threshold as taught by *Stolfo* so that “to provide a method for identifying duplicate records in a database of financial document images, each record having at least one field and a plurality of keys” at 11:47-50 and “to provide variable-size or scaled check images retained on storage media, including decompression by utilizing codebook code to render full color and faithful reproductions of archived check images” at 11:42-46.

Regarding **Claim 4**, while *Krouse* discloses the method of Claim 1, *Krouse* does not disclose further comprising the step of matching the confidence score with a predetermined low similarity threshold.

*Stolfo* teaches comprises the step of matching the confidence score with a predetermined low similarity threshold (The high similarity threshold as disclosed in *Stolfo* can also constitute a low similarity threshold also if any calculated  $\lambda$  value is greater than (considered “below” when negating) a pre-established  $\lambda$  as discussed above (step 118).).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the method of *Krouse* to include further comprising the step of matching the

confidence score with a predetermined low similarity threshold as taught by *Stolfo* so that “to provide a method for identifying duplicate records in a database of financial document images, each record having at least one field and a plurality of keys” at 11:47-50 and “to provide variable-size or scaled check images retained on storage media, including decompression by utilizing codebook code to render full color and faithful reproductions of archived check images” at 11:42-46.

Regarding **Claim 5**, while *Krouse* in view of *Stolfo* discloses the method of Claim 4, *Krouse* in view of *Stolfo* does not disclose further comprising the step of creating a new document template for the account corresponding to the document image if the confidence score is below the predetermined low similarity threshold.

*Stolfo* teaches comprising the step of creating a new document template for the account corresponding to the document image if the confidence score is below the predetermined low similarity threshold (fig. 6, reference numeral 124 shows that a background of the check image below the pre-established lambda value is compressed. In addition, “It is another object of the present invention to provide variable-size or scaled check images retained on storage media, including decompression by utilizing codebook code to render full color and faithful reproductions of archived check images.”, column 11:42, and thus it can be inferred that if the check image in question has been compressed into the memory for future decompression when exerting the algorithm, a new document template for the account has been produced.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the method of *Krouse* in view of *Stolfo* to further comprise the step of creating a new document template for the account corresponding to the document image if the confidence

score is below the predetermined low similarity threshold as taught by *Stolfo* so that “to provide a method for identifying duplicate records in a database of financial document images, each record having at least one field and a plurality of keys” at 11:47-50 and “to provide variable-size or scaled check images retained on storage media, including decompression by utilizing codebook code to render full color and faithful reproductions of archived check images” at 11:42-46.

Regarding **Claim 6**, while *Krouse* in view of *Stolfo* discloses the method of Claim 4, *Krouse* in view of *Stolfo* does not disclose further comprising the step of applying a partial layout comparison to the image and the closest matching template if the confidence score is above the low similarity threshold.

*Stolfo* teaches further comprising the step of applying a partial layout comparison to the image and the closest matching template if the confidence score is above the low similarity threshold (Other than the background pattern template comparison as discussed above, fig. 4 shows a signature comparison as well. Because of these two separate databases and comparisons, the background pattern template comparison (having fig. 6 in more detail) can be considered a partial layout comparison of the check as a whole. It has already been discussed above that if the confidence score and the low similarity threshold is equivalent to the high similarity threshold (Case 1), being above the low similarity threshold is equivalent to the high similarity threshold range as already discussed in Claim 3.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the method of *Krouse* in view of *Stolfo* to further comprise the step of applying a partial layout comparison to the image and the closest matching template if the confidence score

is above the low similarity threshold as taught by *Stolfo* so that “to provide a method for identifying duplicate records in a database of financial document images, each record having at least one field and a plurality of keys” at 11:47-50 and “to provide variable-size or scaled check images retained on storage media, including decompression by utilizing codebook code to render full color and faithful reproductions of archived check images” at 11:42-46.

Regarding **Claim 7**, while *Krouse* in view of *Stolfo* discloses the method of Claim 6, *Krouse* in view of *Stolfo* do not disclose further comprises the step of providing results of the partial layout comparison including a list of image parts and a corresponding confidence score for each image part.

*Stolfo* teaches further comprising the step of providing results of the partial layout comparison including a list of image parts and a corresponding confidence score for each image part (Other than the background pattern template comparison as discussed above, fig. 4 shows a signature comparison as well. “In one embodiment according to the present invention, the payor's signature on the check 50 is verified for authenticity by comparing it with a database of signatures 84 including a representation of the signature of the drawer. If the signature does not match a corresponding signature in the database 86, the bank operator needs to be informed for manual verification and the possibility of a possible fraudulent check 88.”, column 26:66. It is inherent that comparing a signature to signatures in a database requires some threshold or confidence score.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the method of *Krouse* in view of *Stolfo* to further comprise the step of providing results of the partial layout comparison including a list of image parts and a corresponding

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confidence score for each image part as taught by *Stolfo* so that “to provide a method for identifying duplicate records in a database of financial document images, each record having at least one field and a plurality of keys” at 11:47-50 and “to provide variable-size or scaled check images retained on storage media, including decompression by utilizing codebook code to render full color and faithful reproductions of archived check images” at 11:42-46.

Regarding **Claim 8**, while *Krouse* in view of *Stolfo* discloses the method of Claim 7, *Krouse* in view of *Stolfo* do not disclose further comprising the step of creating one or more exclusion zones corresponding to image parts that exhibit a low confidence score.

*Stolfo* further comprises the step of creating one or more exclusion zones corresponding to image parts that exhibit a low confidence score (fig. 4, items 88, 66, 94 such that “exclusion zones” are those actions taken if the image part of the check does not match within a pre-established threshold for questioning the authenticity of the check, as the checks are “excluded” from further processing).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the method of *Krouse* in view of *Stolfo* to further comprise the step of creating one or more exclusion zones corresponding to image parts that exhibit a low confidence as taught by *Stolfo* so that “to provide a method for identifying duplicate records in a database of financial document images, each record having at least one field and a plurality of keys” at 11:47-50 and “to provide variable-size or scaled check images retained on storage media, including decompression by utilizing codebook code to render full color and faithful reproductions of archived check images” at 11:42-46.

Regarding **Claim 10**, Claim 10 recites identical features as in Claims 1, 2, 4, and 9. Thus, arguments equivalent to that presented above for Claims 1, 2, 4 and 9 are equally applicable to Claim 10.

Regarding **Claim 11**, Claim 11 recites identical features as in Claim 3. Thus, arguments equivalent to that presented above for Claim 3 is equally applicable to Claim 11.

Regarding **Claim 12**, Claim 12 recites identical features as in Claim 5. Thus, arguments equivalent to that presented above for Claim 5 is equally applicable to Claim 12.

Regarding **Claim 13**, Claim 13 recites identical features as in Claim 6. Thus, arguments equivalent to that presented above for Claim 6 is equally applicable to Claim 13.

Regarding **Claim 14**, Claim 14 recites identical features as in Claim 7. Thus, arguments equivalent to that presented above for Claim 7 is equally applicable to Claim 14.

Regarding **Claim 15**, Claim 15 recites identical features as in Claim 8. Thus, arguments equivalent to that presented above for Claim 8 is equally applicable to Claim 15.

Regarding **Claims 16 and 22**, Claims 16 and 22 recites identical features as in Claims 1, 2, 4 and 9. Thus, arguments equivalent to that presented above for Claims 1, 2, 4 and 9 are equally applicable to Claims 16 and 22 in addition to performing the method using a computer program and machine readable instructions as disclosed: item 40 of fig. 2, *Krouse*.

Regarding **Claim 17**, Claim 17 recites identical features as in Claim 3. Thus, arguments equivalent to that presented above for Claim 3 is equally applicable to Claim 17.

Regarding **Claim 18**, Claim 18 recites identical features as in Claim 5. Thus, arguments equivalent to that presented above for Claim 5 is equally applicable to Claim 18.

Regarding **Claim 19**, while *Krouse* in view of *Stolfo* discloses the computer program of Claim 16, *Krouse* in view of *Stolfo* do not disclose further comprising machine readable instructions for applying a partial layout comparison to the document image and the closest matching document template if the confidence score is above the low similarity threshold and below the high similarity threshold.

*Stolfo* teaches comprising machine readable instructions for applying a partial layout comparison to the document image and the closest matching document template if the confidence score is above the low similarity threshold and below the high similarity threshold (fig. 6 again shows the background portion of the check being compared to database templates (partial layout comparison) for both the low and high similarity threshold comparisons against the confidence score. Arguments equivalent to that presented above for Claims 3 and 5 is equally applicable to Claim 19 since the low and high similarity threshold comparisons are equivalent in Case 1.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the method of *Krouse* in view of *Stolfo* to further comprise machine readable instructions for applying a partial layout comparison to the document image and the closest matching document template if the confidence score is above the low similarity threshold and below the high similarity threshold as taught by *Stolfo* so that “to provide a method for identifying duplicate records in a database of financial document images, each record having at least one field and a plurality of keys” at 11:47-50 and “to provide variable-size or scaled check images retained on storage media, including decompression by utilizing codebook code to render full color and faithful reproductions of archived check images” at 11:42-46.

Regarding **Claim 20**, Claim 20 recites identical features as in Claim 7. Thus, arguments equivalent to that presented above for Claim 7 is equally applicable to Claim 20.

Regarding **Claim 21**, Claim 21 recites identical features as in Claim 8. Thus, arguments equivalent to that presented above for Claim 8 is equally applicable to Claim 21.

### ***Response to Arguments***

[11] Applicant's arguments filed on March 11, 2008 with respect to Claims 1, 8, 10, 15-16, and 21 have been respectfully and fully considered, but are not found persuasive.

[12] Summary of Remarks regarding Claims 1, 10, and 16:

*Stolfo* fails to teach that each record contains information about a unique layout to allow the document itself to be identified and information in that particular document to be identified and read. The "collection of identifiers" in the *Stolfo* records only distinguishes the records from each other (*Id.*), and has no role in identifying a particular document or allowing information in a particular document to be identified and read. Although *Stolfo* teaches that information, such as a signature from a document/check, may be identified (see, e.g., column 26, lines 57-66; column 27-5), the records of *Stolfo* themselves do not include information about a unique layout to allow information in a particular document to be identified and read, as would be required by claims 1, 10, and 16. Rather, *Stolfo* teaches that the information is obtained from the remainder after the records are used to subtract the document background away. (*Id.*)

Furthermore, as stated by the Examiner on page 5 and page 12 of the Action, *Stolfo* fails to teach that the appropriate template is used to identify a location on the record to look for information that is desired during document processing, as required by amended claim 1. *Stolfo*,

on the other hand, simply teaches a "template" that allows substantial compression by representing the background as merely a simple identifying code. (See *Stolfo*, column 7, lines 52-54).

*Krouse* fails to cure the deficiency in *Stolfo*. *Krouse* concerns financial transaction. respective formats (emphasis added). These "other transaction documents" are not predefined document templates or a series of known templates but, rather, previous transaction documents that have already been analyzed by the system. This is not the same as the appropriate template as described by the current application. Particularly, the "other transaction documents" does not comprise a "number of predefined document templates (those being documents in circulation in a particular institution and only those)" (see page 3 of current application). Accordingly, claim 1 is patentable over *Stolfo* in view of *Krouse*.

**[13]** Examiner's Response regarding Claims 1, 10, and 16:

Applicant's arguments with respect to Claims 1, 10, and 16 have been considered but are moot in view of the new grounds of rejection.

**[14]** Summary of Remarks regarding Claims 8, 15, and 21:

Applicant argues that the Examiner broadly interprets an exclusion zone as covering any action taken if the image part of the check does not match with a pre-established threshold. The present invention's description of exclusion zone, however, is distinctly defined differently in claims 7, 14, and 20, from which claims 8, 15, and 21 respectively depend. Specifically, claims 7, 14, and 20 recite that the comparison is a partial layout comparison of the image parts and not a comparison of the entire image as a whole. Only the image parts and not the entire image is

excluded from further processing if that image part has a relatively small zone of low-confidence matching. (*See, e.g.*, present application ¶161.)

Such image parts are labeled as an exclusion zone and would be excluded from future image feature comparisons. Consequently, *Stolfo* fails to teach the creation of one or more exclusion zones corresponding to image parts that exhibit a low confidence score. Accordingly, claims 8, 15, and 21 are also patentable over *Stolfo* and *Krouse*, viewed alone or in combination.

**[15]** Examiner's Response regarding Claims 8, 15, and 21:

Though the applicant's interpretation of "exclusion zone" is different from that of the examiner's, Claims 8, 15, and 21 have shown they can be read broadly enough to encompass both interpretations. The examiner has interpreted an exclusion zone that to be when the check is "excluded" from further processing due to the presence of potential fraudulent activity within the check document image, on the onset of a low confidence score (0% match or "No" to the answers within fig. 4). This situation may arise on multiple occasions (or "zones") within the method of *Stolfo*, including identifying code, signature, and date matching.

***Conclusion***

**[16]** The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 5216724 A; US 5237620 A; US 5430644 A; US 5433483 A; US 5448471 A; US 5524063 A; US 5563955 A; US 5659469 A; US 5677955 A; US 5748780 A.

**[17]** Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID P. RASHID whose telephone number is (571)270-1578. The examiner can normally be reached Monday - Friday 7:30 - 17:00 ET.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on (571) 272-74155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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